CONTENTS

Preface ix
Progress of the thermophysical properties research on environmentally acceptable refrigerants in Japan
K. Watanabe and H. Sato (Yokohama, Japan) 1–17
A thermodynamic surface of state for refrigerant 22 + refrigerant 114 system and an application to cycle analysis
N. Kagawa (Yokosuka, Japan), M. Uematsu and K. Watanabe (Yokohama, Japan) 19–31
Prediction of refrigerant thermodynamic properties by equations of state: vapor liquid equilibrium behavior of binary mixtures
M. Moshfeghian (Shiraz, Iran), A. Shariat and R.N. Maddox (Stillwater, OK, USA) 33–44
A fundamental equation for trichlorofluoromethane (R-11)
R.T. Jacobsen, S.G. Penoncello and E.W. Lemmon (Moscow, ID, USA) 45–56
A fundamental equation for dichlorodifluoromethane (R-12)
S.G. Penoncello, R.T. Jacobsen and E.W. Lemmon (Moscow, ID, USA) 57–70
A fundamental equation for chlorodifluoromethane (R-22)
A. Kamei, S.W. Beyerlein and E.W. Lemmon (Moscow, ID, USA) . 71–85
An equation of state for a new working fluid HCFC-123
C.-C. Piao, H. Sato and K. Watanabe (Yokohama, Japan) 87–98
New experimental vapor pressure data and a new vapor pressure equation for HFC134a
M.-S. Zhu, J. Wu and Y.-D. Fu (Beijing, People's Republic of China) 99–105
Dielectric constant of environmentally acceptable refrigerants HFC-134a, HCFC-123 and HCFC-141b under high pressures
Y. Tanaka, T. Tsujimoto, S. Matsuo and T. Makita (Kobe, Japan). 107–117
Measurements of gaseous isobaric specific heat capacity of alternative refrigerants
Y. Ikeya (Kanagawa, Japan), C.-C. Piao (Yokohama, Japan), S. Yokota (Kanagawa, Japan), H. Sato and K. Watanabe (Yokohama, Japan) 119–129
Experimental study of *PVT* properties of HCFC-123 ($CHCl_2CF_3$)
K. Oguchi, M. Yamagishi and A. Murano (Kanagawa, Japan) 131–140
Ebulliometric measurement of the vapor pressures of R123 and R141b
L.A. Weber (Gaithersburg, MD, USA) 141–148
An experimental study of *PVT* properties of CFC alternative HFC-134a
M.-S. Zhu, Y.-D. Fu and L.-Z. Han (Beijing, People's Republic of China) 149–156
Compressed liquid densities and saturation densities of pentafluoroethane (R125)
D.R. Defibaugh and G. Morrison (Gaithersburg, MD, USA)..... 157–166
Thermophysical properties of HFC-125
L.C. Wilson, W.V. Wilding, G. M. Wilson, R. L. Rowley (Provo, UT, USA), V.M. Felix and T. Chisolm-Carter (Deepwater, NJ, USA) ... 167–177

Isochoric (p, v, T,) measurements on $C_2H_4F_2$ (R152a) in the liquid state from the triple point to 450 K and at pressures up to 30 MPa
W. Blanke and R. Weiss (Braunschweig, Germany) 179–190
Measurements of *PVT* properties and vapor pressure for HFC152a
Z.Y. Zhao, J.M. Yin and L.C. Tan (Xi'an, People's Republic of China) 191–202
Measurements of the vapor–liquid coexistence curve in the critical region for refrigerant mixture R152a/R22
J. Wang, Z.G. Liu, L.C. Tan and J.M. Yin (Xi'an, Peoples Republic of China) 203–211
Density of HCFC 142b and of its mixture with HCFC 22
A.T. Sousa, P.S. Fialho, C.A. Nieto de Castro (Lisbon, Portugal), R. Tufeu and B. Le Neindre (Villetaneuse, France)..... 213–225
Liquid densities and vapor pressure of HCFC 225ca and HCFC 225cb
J.V. Widiatmo, Y. Maezawa, H. Sato and K. Watanabe (Yokohama, Japan) 227–238
Prediction of viscosity of refrigerants and refrigerant mixtures
M.L. Huber (Boulder, CO, USA) and J.F. Ely (Golden, CO, USA).. 239–248
Prediction of the thermal conductivity of refrigerants and refrigerant mixtures
M.L. Huber, D.G. Friend (Boulder, CO, USA) and J.F. Ely (Golden, CO, USA) 249–261
Thermal conductivity of R134a
A. Laesecke, R.A. Perkins (Boulder, CO, USA) and C.A. Nieto de Castro (Lisbon, Portugal)..... 263–274
Polarized transient hot wire thermal conductivity measurements
R.A. Perkins, A. Laesecke (Boulder, CO, USA) and C.A. Nieto de Castro (Lisbon, Portugal)..... 275–286
Thermal conductivity of alternative fluorocarbons in liquid phase
J. Yata, M. Hori, T. Kurahashi (Kyoto, Japan) and T. Minamiyama (Fukuyama, Japan) 287–296
Thermal conductivity of HFC152a
J.M. Yin, J.X. Guo, Z.Y. Zhao, L.C. Tan and M. Zhao (Xi'an, People's Republic of China) 297–303
Measurement of thermal diffusivity of the refrigerants R22 and R134a by means of dynamic light scattering
B. Kruppa and J. Straub (Munich, Germany) 305–321
Thermal diffusivity of the alternative refrigerants R123, R134a, R142b and R152a in the liquid phase
M. Ibreighith, M. Fiebig (Bochum, Germany), A. Leipertz (Erlangen, Germany) and G. Wu (Bochum, Germany) 323–332

Author index..... 333